(b) *Verifying downloads.* Following download of any game software, the Class II gaming system shall verify the downloaded software using a software signature verification method that meets the requirements of § 547.8(f). Using any method it deems appropriate, the tribal gaming regulatory authority shall confirm the verification.

§ 547.13 What are the minimum technical standards for program storage media?

This section provides minimum standards for removable, (re-)writable, and nonwritable storage media in Class II gaming systems.

(a) *Removable program storage media.* All removable program storage media shall maintain an internal checksum or signature of its contents. Verification of this checksum or signature is to be performed after every restart. If the verification fails, the affected Class II gaming system component(s) shall lock up and enter a fault state.

(b) *Nonrewritable program storage media.* (1) All EPROMs and Programmable Logic Devices (PLDs) that have erasure windows shall be fitted with covers over their erasure windows.

(2) All unused areas of EPROMs shall be written with the inverse of the erased state (*e.g.*, zero bits (00 hex) for most EPROMs), random data, or repeats of the program data.

(3) Flash memory storage components intended to have the same logical function as ROM, *i.e.* not to be dynamically written, shall be write-protected or otherwise protected from unauthorized modification.

(4) The write cycle shall be closed or finished for all CD–ROMs such that it is not possible to write any further data to the CD.

(5) Write protected hard disks are permitted if the hardware means of enabling the write protect is easily viewable and can be sealed in place Write protected hard disks are permitted using software write protection verifiable by a testing laboratory.

(c) *Writable and rewritable program storage media.* (1) Writable and rewritable program storage, such as hard disk drives, Flash memory, writable

CD–ROMs, and writable DVDs, may be used provided that the software stored thereon may be verified using the mechanism provided pursuant to § 547.8(f).

(2) Program storage shall be structured so there is a verifiable separation of fixed data (*e.g.* program, fixed parameters, DLLs) and variable data.

(d) *Identification of program storage media.* All program storage media that is not rewritable in circuit, (*e.g.* EPROM, CD–ROM) shall be uniquely identified, displaying:

(1) Manufacturer;

(2) Program identifier;

(3) Program version number(s); and

(4) Location information, if critical (*e.g.* socket position 3 on the printed circuit board).

§ 547.14 What are the minimum technical standards for electronic random number generation?

This section provides minimum standards for electronic RNGs in Class II gaming systems.

(a) *Properties.* All RNGs shall produce output having the following properties:

(1) Statistical randomness;

(2) Unpredictability; and

(3) Non-repeatability.

(b) *Statistical Randomness.* (1) Numbers produced by an RNG shall be statistically random individually and in the permutations and combinations used in the application under the rules of the game. For example, if a bingo game with 75 objects with numbers or other designations has a progressive winning pattern of the five numbers or other designations on the bottom of the card and the winning of this prize is defined to be the five numbers or other designations are matched in the first five objects drawn, the likelihood of each of the 75C5 combinations are to be verified to be statistically equal.

(2) Numbers produced by an RNG shall pass the statistical tests for randomness to a 99% confidence level, which may include:

(i) Chi-square test;

(ii) Equi-distribution (frequency) test;

(iii) Gap test;

(iv) Poker test;

(v) Coupon collector's test;

(vi) Permutation test;